

Application No. 10/757,779  
Amendment dated September 19, 2005  
Reply to Office Action of May 19, 2005

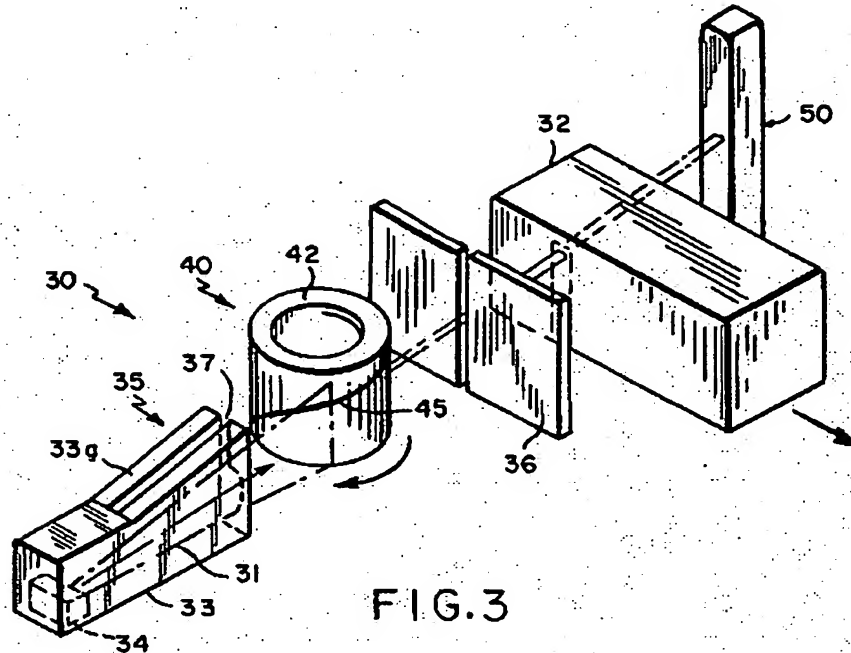
**REMARKS**

Claims 1, 15, 18, and 22 were objected to for informalities. Claims 1-3, 5, 6, 8, 11-17, and 19-21 were rejected under 35 U.S.C. 103(a) given Annis (U.S. Patent No. 5,493,596) ("Annis") in view of Verbinski et al. (U.S. Patent No. 6,507,025) ("Verbinski"). Claims 9, 18, and 22 were rejected under 35 U.S.C. 103(a) given Annis in view of Verbinski and further in view of Galish et al. (U.S. Patent No. 6,711,235) ("Galish"). Claims 4, 7 and 10 were objected to as depending upon rejected base claims but were otherwise found to contain allowable subject matter. The applicant thanks the Examiner for this indication of allowable subject matter and otherwise traverses the objections and rejections specified and respectfully requests reconsideration.

Claim 1 was objected to for lack of antecedent basis for "the x-ray platform." Claim 15 was objected to with the Examiner noting that "collimating" should instead read as "collimator." Claim 18 was objected to with the Examiner noting that "the post collimator" lacked antecedent basis. Claim 22 was objected to for lack of antecedent basis for "the post collimator." Appropriate corrections have been made in each claim specific to the informality noted. The Applicant thanks the Examiner for noting these informalities and for providing the opportunity to make these corrections. The Applicant respectfully submits that these claims are now in suitable condition to support allowance.

Claims 1-3, 5, 6, 8, 11-17, and 19-21 have been rejected under 35 U.S.C. 103(a) given Annis (U.S. Patent No. 5,493,596) ("Annis") in view of Verbinski et al. (U.S. Patent No. 6,507,025) ("Verbinski"). Prior to discussing the merits of the rejection the applicant believes it would first be helpful to briefly describe and characterize the Annis reference.

Annis describes a high-energy X-ray inspection system that is generally set forth in his FIG. 3 which is reproduced below for the convenience of the reader.



Annis' system has an X-ray source (34) that is contained within an enclosure (33) that itself has an integral precollimator device (35) to thereby form a so-called fan-beam of X-rays. Annis also provides a fixed-slit collimator (36) between the X-ray source and an intended target object (32).

Annis has a particular goal of providing what he calls a high-energy pencil beam, which pencil beam Annis then wishes to scan over the surface of the target object. To achieve provision of this pencil beam, Annis then also provides a rotating cylindrical collimator (40). This rotating cylindrical collimator has a helical slit (45) that extends long the outer surface of this cylindrical collimator. "As the collimator rotates about its center axis, the orientation of the slit changes and the pencil-beams exiting the collimator are constantly displaced in a downward, sweeping direction to form a line of beams."<sup>a</sup>

<sup>a</sup> Annis at column 5, lines 43-47.

Annis is therefore seen to provide two stationary collimators on either side of a rotating collimator wherein the latter serves the two-fold purpose of reducing a fan-beam to a pencil beam and of causing the pencil beam to sweep downwardly.

There are numerous differences between the teachings of Annis and those set forth in the present application. One such difference relates to the applicant's intermediate collimator. While Annis provides a rotating collimator the applicant has a stationary collimator. This constitutes a significant difference for various reasons, not least because Annis employs his non-stationary collimator in particular to reduce a fan-beam to a sweeping pencil beam.

This distinction is evident in amended claim 1. In particular, claim 1 now reads, in pertinent part, "said intermediate collimator having a spaced-apart relationship with respect to the precollimator and the first collimator and being *substantially stationary* with respect to the precollimator." <sup>b</sup>

The applicant respectfully submits that it would not be obvious to one skilled in the art to replace Annis' rotating pencil beam-creating collimator with a stationary collimator. To do so would be to ignore and eschew the teachings of Annis when taken as a whole. In particular, to replace the rotating collimator with a stationary collimator would be to defeat Annis' entire point – to create a moving pencil beam of X-ray energy.

Accordingly, the applicant respectfully submits that claim 1, as amended, is readily distinguished over the references of record and may be passed to allowance.

Independent claim 19 has a similar limitation as that just discussed above. For these same reasons, then, the applicant further respectfully submits that claim 19 may be passed to allowance as well.

Dependent claims 2-18 and 20-22 are ultimately dependent upon one of the independent claims discussed above. In addition, each of these dependent claims introduces additional content which, particularly viewed in context with the claim(s) from which they depend, constitutes additional incremental patentable subject matter.

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<sup>b</sup> Emphasis provided.

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alluded to in some of the previously presented dependent claims<sup>c</sup> and in particular addresses the wings that the applicant teaches may be incorporated with a collimator. As is set forth in these new claims, these wings extend away from the body of the collimator and form an X-ray beam pathway slot that is wider than the collimator's collimating slot and that serves to intercept and diminish X-ray beam scatter as will occur when an X-ray beam impinges the collimator's collimating slot and a surface of the collimator that faces the X-ray source. As such features are starkly absent from the prior art references of record, the applicant respectfully submits that claims 23 and 24 may be passed to allowance as well.

There being no further objections to or rejections of the claims, the applicant respectfully submits that claims 1 through 24 may be passed to allowance.

Respectfully submitted,

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Date: September 19, 2005

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<sup>c</sup> See, for example, dependent claims 2-4.